

[METHOD OF TREATING DIESEL EXHAUST GASES]

Abstract of Disclosure

A diesel exhaust treatment system and method of oxidizing NO to NO₂ at low temperatures are provided. The system utilizes a platinum catalyst on a zirconia-stabilized silica support which oxidizes NO in the exhaust gas to NO₂ and uses the NO₂ in an amount sufficient to oxidize particulate trapped on a particulate filter. The catalyst is preferably pre-treated at a temperature of between about 500 to 650 ° C in a NO-oxygen-nitrogen mixture to increase conversion at low temperatures. The catalyst preferably includes an additional oxide component selected from the group consisting of TiO₂, P₂O₅, WO₃, B₂O₃, and Al₂O₃, or a heteropolyacid component to further increase activity at low temperatures or to decrease platinum loading at the same level of performance.

2016-01-21 09:59:56